

| | | |
|-------------------------------|--|---|
| Notice of Allowability | Application No. 09/679,097 Examiner Nitin Patel | Applicant(s) YAMADA, TSUTOMU Art Unit 2629 |
|-------------------------------|--|---|

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 9/20/2005.
2. The allowed claim(s) is/are 1-2,5-13,15-16,18 Now renumbered 1-14 respectively.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 11/12/2004
4. Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Joel T. Charlton (Registration No. 52,721) on 3/17/2006.
3. The application has been amended as follows:
 - (a) **Claim 1 has been replaced with following amended claim 1.**
 - I. A color display device in which display pixels for indicating different colors are provided in plural numbers for each color and arranged in a matrix, said color display device comprising, corresponding to each display pixel:
 - a self-emissive element for emitting light of a predetermined color;
 - a driving thin film transistor (TFT) having a first end electrical communication with said self-emissive element for supplying a drive current to said self-emissive element and a second end in electrical communication with a power source with a constant voltage; and
 - a switching TFT having a first end in electrical communication with a data line and a second end in electrical communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT; wherein

size of said driving TFT in a display pixel for one color is altered from that in a display pixel for another color; wherein

size of a driving TFT connected to self-emissive element having a high emissive efficiency is set smaller compared to said size of a driving TFT connected to a self-emissive element having a low emissive efficiency.

(b) **Claims 3,4 have been cancelled.**

(c) **Claim 5 has been replaced with following amended claim 5.**

I. The color display device as claimed in claim 1, wherein
said size of a driving TFT connected to self-emissive element having a highest emissive efficiency is set smaller compared to said size of a driving TFT connected to a self-emissive element having any other level of emissive efficiency.

(d) **Claim 7 has been replaced with following amended claim 7.**

I. The color display device as claimed in claim 1, wherein
said size of a driving TFT connected to self-emissive element having a lowest emissive efficiency is set larger compared to said size of a driving TFT connected to a self-emissive element having any other level of emissive efficiency.

(e) **Claim 9 has been replaced with following amended claim 9.**

I. The color display device as claimed in claim 1, wherein
said size of said driving TFT is made successively larger as the emissive efficiency decrease.

(f) **Claim 13 has been replaced with following amended claim 13.**

I. A color display device in which a display pixels for indicating different colors are provided in plural numbers for each color and arranged in a matrix, said color display device comprising, corresponding to each display pixel:

a self-emissive element for emitting light of a predetermined color;

a driving thin film transistor (TFT) having a first end in communication with said self-emissive element for supplying a drive current to said self-emissive element; and

a switching TFT having a first end in communication with a data line and a second end in communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT; wherein

size of said driving TFT in a display pixel for one color is set for every color in accordance with:

an emission efficiency of said emissive element disposed at said display pixel;

a chromaticity of each color emitted by respective emissive element; and

the chromaticity of target display white of the display device; and

the size of said driving TFT of the display pixel of any one color, among the display pixel of various colors, is different from the size of said driving TFT of the display pixel of another color.

(g) **Claim 14 has been cancelled.**

(h) Claim 16 has been replaced with following amended claim 16.

I. A color display device in which a display pixels for indicating different colors are provided in plural numbers for each color and arranged in a matrix, said color display device comprising, corresponding to each display pixel:

a self-emissive element for emitting light of a predetermined color;

a driving thin film transistor (TFT) having a first end in communication with said self-emissive element for supplying a drive current to said self-emissive element; and

a switching TFT having a first end in communication with a data line and a second end in communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT; wherein

size of said driving TFT in a display pixel for red, for green and for blue is set on the basis of:

the emission efficiency of the emissive element of each display pixel; and

a luminance ratio of red to green to blue in accordance with each chromaticity of red, green and blue emitted by respective emissive element of the display pixel and with the chromaticity of target display white of the display device; wherein

the emissive area of the display pixel of any one color among said display pixel of red, for green, and for blue is different in size from the emissive area of the display pixel of another color.

(i) **Claim 17 has been cancelled.**

REASON FOR ALLOWANCE

4. Claims 1,2,5-13,15-16,18 are allowed. Claims 3,4,14,17 have been cancelled.

5. The following is an examiner's statement of reason for allowance:

The prior art fails to teach or suggest a color display device in which display pixels for indicating different colors are provided in plural numbers for each color and arranged in a matrix, said color display device comprising, corresponding to each display pixel: a self-emissive element for emitting light of a predetermined color; a driving thin film transistor (TFT) having a first end in electrical communication with said self-emissive element for supplying a drive current to said self-emissive element and a second end in electrical communication with a power source with a constant voltage; and a switching TFT having a first end in electrical communication with a data line and a second end in electrical communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT; wherein size of said driving TFT in a display pixel for one color is altered from that in a display pixel for another color; wherein size of a driving TFT connected to self-emissive element having a high emissive efficiency is set smaller compared to said size of a driving TFT connected to a self-emissive element having a low emissive efficiency as claimed in claim 1.

The prior art fails to teach or suggest a color display device in which a display pixels for indicating different colors are provided in plural numbers for each color and arranged in a matrix, said color display device comprising, corresponding to each display pixel: a self-emissive element for emitting light of a predetermined color; a driving thin film transistor (TFT) having a first end in communication with said self-emissive element for supplying a drive current to said self-emissive element; and a

Art Unit: 2629

switching TFT having a first end in communication with a data line and a second end in communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT; wherein size of said driving TFT in a display pixel for one color is set for every color in accordance with: a emission efficiency of said emissive element disposed at said display pixel; a chromaticity of each color emitted by respective emissive element; and the chromaticity of target display white of the display device; and the size of said driving TFT of the display pixel of another color as claimed in claim 13.

The prior art fails to teach or suggest a color display device in which a display pixels for indicating different colors are provided in plural numbers for each color and arranged in a matrix, said color display device comprising, corresponding to each display pixel: a self-emissive element for emitting light of a predetermined color; a driving thin film transistor (TFT) having a first end in communication with said self-emissive element for supplying a drive current to said self-emissive element; and a switching TFT having a first end in communication with a data line and a second end in communication with a gate of said driving TFT, said switching TFT controls whether a data signal from said data line is supplied to said gate of said driving TFT; wherein size of said driving TFT in a display pixel for red, for green and for blue is set on the basis of: the emission of efficiency of the emissive element of each display pixel; and a luminance ratio of red to green to blue in accordance with each chromaticity of red, green and blue emitted by respective emissive element of the display pixel and with the chromaticity of target display white of the display device; wherein the emissive area of

the display pixel of any one color among said display pixel of red, for green, and for blue is different in size from the emissive area of the display pixel of another color.
any one color, among the display pixel of various colors, is different from the size of said driving TFT of the display pixel of another color as claimed in claim 16.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 571-272-7677. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H. Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600